

Sustainable equine farming

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Grasland and nutrition specialist, John Corbett of Coolmore and the Hickey family who are Sport Horse breeders from Killarney, are actively reducing their impact on the environment while also enhancing biodiversity to create ever more sustainable equine enterprises.

At Coolmore, sustainable farming is at the heart of everything they do, according to John Corbett. Similarly, the Hickey family have a passion for sustainability.

David Hickey runs a progressive Sport Horse breeding business, as well as a beef farm, in partnership with his brother Stephen and his father Frank on 50ac in Killarney, Co Kerry. They have 15 horses and 40 beef cattle.

Biodiversity

The Hickeys have actively improved levels of biodiversity on their farm and create habitats for a diverse range of wildlife species.

“There are owls, bats and numerous bird species. We also have badger setts, which have been there for 50 years, foxes, deer, rabbits and hares as well as nesting birds of prey. We have erected owl boxes, bat and bird boxes around the farmyard as well as in the native woodland. Birdwatch Ireland recently visited our farm to evaluate the owls and other wildlife.

“My dad joined REPS in the 90s and undertook measures including fencing off streams and allowing areas of the farm to grow wild naturally. Native woodland species sown during that period included oak, ash, birch, horse chestnut and sycamore.”

At Coolmore, there is also a huge focus on biodiversity, according to John Corbett. “We plant in excess of anything we remove and maintain hedgerows in accordance with guidelines. There are hedgehogs, rabbits, red squirrels and numerous birds on the farm. The high numbers of buz-



Stephen Hickey with some yearlings. Valerie O'Sullivan

zards in Coolmore indicate they have plenty of prey,” he says.

Both enterprises advocate the planting and careful management of new hedges by equine farming colleagues containing native Irish species.

“Hedgerows should be managed for biodiversity,” adds John Corbett “in particular, avoid cutting during the nesting season.”

Pollinators

John Corbett comments: “To support pollinators, we now let many areas of the farm grow wild naturally. In previous years, these areas would have been well cut or sprayed.”

A similar approach is implemented by the Hickeys: “Our dad originally established beehives on the farm and

now our mother, Noreen, has taken on their management. We leave wildflowers grow and find flowering clover a great source of nectar for the bees.”

Under the Agri-Food 2030 strategy, all farms are expected to retain quality habitats. The retention of existing habitats is vital, as they typically deliver greater ecological benefits than with newly created habitats. Consequently, equine farmers should aim to optimise the ecological quality of existing farmland habitats, before establishing new biodiversity or carbon initiatives.

Grassland management

To fulfil a horse's genetic potential, diet and nutrition must be managed to deliver the correct balance of





Stephen Hickey.
Valerie O'Sullivan



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nutrients. Grass is the backbone of all activity at Coolmore and also for breeder David Hickey.

“At Coolmore, we use soil sampling and grass analysis extensively,” says John Corbett. “Soil and grass analysis are continually monitored to ensure we are providing the correct nutrients to our horses – there is no guessing. We analyse our grass three times a year. The key to nutrition is to have excellent soil fertility.”

“We make sure the soil is balanced in terms of nitrogen (N), phosphorus (P) and potassium (K). Lime is applied based on soil test results. We use the Teagasc Nutrient Management Plan (i.e fertiliser plan) to monitor and

track all inputs in all paddocks. The fertility levels of each field are recorded, as well as tracking the quantity and location of all inputs spread. It's real-time farming,” says John.

Effective grassland management at Coolmore has resulted in all beef cattle raised on the farm being completely grass-fed, with no concentrates.

“This is beneficial, as it also helps keep our P levels down,” says John.

“At Coolmore, permanent multi-species swards predominate. Overseeding is done using three diploid varieties to maintain grass quality. Spot spraying is done to eradicate any weed issues, as we no longer blanket spray.”

David Hickey's brother, Stephen, is the grassland manager.

“Our nitrogen input is very low. Any fertiliser or lime inputs are based on results from a soil test and we test our soil every four years.

“We find that smaller paddocks are much easier to maintain and control grass quality. All our grassland consists of permanent multispecies swards.

“We top thistles once a year before they seed and we pull other weeds (e.g ragwort) as they emerge.”

Mixed grazing

Both John Corbett, David, Stephen and Frank Hickey advocate mixed horse and cattle grazing to maintain grass quality. Mixed grazing works particularly well for horses, controlling parasites and keeping pastures clean and well grazed.

In 2020, French research confirmed that mixed grazing with cattle reduces strongyle worms in horses. With a few exceptions, gastrointestinal parasites of horses and cattle are host specific.

Thus, infective stages of horse worms ingested by cattle will not develop to adults (and vice versa).

Mixed grazing of horses and cattle leads to more sustainable agro-ecological parasite management strategies on equine farms, as an alternative to repeated chemical treatment, which raises serious resistance issues.



Alan Hurley (left), Stephen, Frank and David Hickey, Valerie O'Sullivan



Mixed grazing at Coolmore. \ Coolmore

Water quality

“Water quality is a high priority at Coolmore. All water sources are evaluated regularly including testing of wells and drinkers for bacterial and nutrient contamination,” John comments. “Buffer zones are strictly respected when applying organic or chemical fertilisers to prevent nutrients reaching watercourses. We plant hedgerows along waterways to help with this.”

Likewise, Stephen Hickey says: “We have one stream running through the farm which is fenced off. We are very conscious of potential run-off issues. Slurry and farmyard manure are only applied when conditions are suitable.”

Both enterprises see their manures as valuable sources of N, P and K and apply them using low-emission technologies.

Technology

At Coolmore, near-infrared (NIR) technology is fitted on all tankers and silage harvesters.

“This allows us to measure the key constituents of slurry (dry matter, nitrogen, ammonium, P and K) and silage (dry matter content, fibre, protein, fat, ash and sugar content) in real time,” John says.

“This allows better management



Valerie O'Sullivan

of nutrients going into the soil and a reduction in unnecessary inputs.”

Composting

Coolmore relies on their manure, which is all recycled on the farm and spread as compost. Their ultra-modern composting kills weed seeds and parasites and is of maximum benefit

to the grasslands. The scientific consensus is clear – if we do nothing, our planet’s natural cycles will be affected forever. Something has to change.

Both John Corbett from Coolmore and David, Stephen and Frank Hickey are showing how the equine industry can farm in an increasingly environmentally sustainable way.